

IN THE CLAIMS

1. CANCELLED

2. (Currently Amended) The computer apparatus recited in Claim 4 11 which further comprises flash memory, and wherein the payload delivery application delivers a ROM-based payload stored in the flash memory to the storage device.

3. (Currently Amended) The computer apparatus recited in Claim 4 11 wherein the ROM client loader is an Int 21h read only memory (ROM) ROM client loader gauges the time that determines when the DOS filing system is stable by monitoring an operating system when an Int 13h call is made to the BIOS by the operating system.

4. (Original) A method of delivering a payload to a storage device of a computer system comprising a payload delivery application, a basic input/output system (BIOS) that provides interrupt 13h services, a disk operating system (DOS) including a DOS filing system, and an interrupt (Int) 21h read only memory (ROM) client loader, the method comprising the steps of:

turning on the computer system to initiate a power-on-self-test (POST) procedure;

saving the interface to the storage device;

hooking an interface to the storage device using the Int 21h ROM client loader during the POST procedure;

loading the disk operating system at the conclusion of the POST procedure;

calling the storage device interface from the disk operating system;

calling the payload delivery program using the Int 21h ROM client loader in response to the storage device interface call;

executing the payload delivery program to deliver the payload to the storage device; and

after payload loading is complete, restoring the stored storage device interface with the Int 21h ROM client loader.

5. (Original) The method recited in Claim 4 wherein the Int 21h ROM client loader detects the storage device interface call from the disk operating system to

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determine the time when the DOS filing system is stable enough to permit execution of the payload delivery application to deliver the payload to the storage device.

6. (Original) The method recited in Claim 4 wherein the storage device interface call by the operating system comprises an Int 13h call which is read by the Int 21h ROM client loader and which launches the payload delivery application to deliver the payload to the storage device.

7. (Original) The method recited in Claim 4 wherein the Int 21h ROM client loader comprises Int 21h RCL startup code and Int 21h RCL run-time code and wherein:

- the Int 21h RCL startup code is run late in the POST procedure;
- the Int 21h RCL startup code hooks the interface to the storage device and save the interface to the storage device;
- the Int 21h RCL run-time code starts at the conclusion of the POST procedure;
- the Int 21h RCL run-time code detects calling of the storage device interface by the disk operating system; and
- the Int 21h RCL run-time code invokes the payload delivery program.

8. (Original) A method of delivering a payload to a storage device of a computer system, comprising the steps of:

- configuring the computer system to have a payload delivery application for delivering the payload to the storage device, a disk operating system (DOS) including a DOS filing system, a filing system interface for interfacing between the payload delivery application and the DOS filing system for performing open, close, read and write tasks on the storage device, and basic input/output system (BIOS) that provides interrupt 12h services that interfaces with the DOS filing system, and an Int 21h read only memory (ROM) client loader (RCL) comprising Int 21h RCL startup code and Int 21h RCL run-time code;
- turning on the computer system to initiate a power-on-self-test (POST) procedure;
- running the Int 21h RCL startup code late in the POST procedure;

saving the interface to the storage device;
hooking an interface to the storage device with the startup code so that the Int 21h RCL run-time code can get called;
loading the disk operating system at the conclusion of the POST procedure;
starting the Int 21h RCL run-time code;
calling the storage device interface from the disk operating system;
calling the payload delivery program using the RCL run-time code in response to the storage device interface call;
executing the payload delivery program to deliver the payload to the storage device; and
after payload loading is complete, restoring the stored storage device interface with the Int 21h ROM client loader run-time code.

9. (Original) The method recited in Claim 8 wherein the Int 21h RCL run-time code detects the storage device interface call from the disk operating system to determine the time when the DOS filing system is stable enough to permit execution of the payload delivery application to deliver the payload to the storage device.

10. (Original) The method recited in Claim 8 wherein the storage device interface call by the operating system comprises an Int 13h call which is read by the Int 21h RCL run-time code and which invokes the payload delivery application to deliver the payload to the storage device.

11. (New) An apparatus, comprising:
a payload delivery application operative to deliver a payload to a storage device;
a disk operating system (DOS) including a DOS filing system;
a filing system interface between the payload delivery application and the DOS filing system operative to initiate open, close, read and write tasks with regard to the storage device;
a basic input/output system (BIOS) operative to provide interrupt services; and

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a read only memory (ROM) client loader, that interfaces with the payload delivery application and the BIOS, that is operative when the apparatus is turned on, and which gauges a time when the DOS filing system is stable enough to permit communication with the storage device by monitoring for a predetermined operating system interrupt call to the BIOS.